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VIA FIRST CLASS MAIL
AND ELECTRONIC MAIL

Heather Anderson, Esquire
State Regulation of Public Utilities Review Committee
Post Office Box 142
Columbia, SC 29202

Re: Comments of South Carolina Electric & Gas Company in response to request for
comments on energy and energy policy issues

Dear Ms. Anderson:

On October 17, 2008, the State Regulation of Public Utilities Review Committee ("Review Committee") issued a Request for Comments on Energy and Energy Policies. Enclosed, on behalf of South Carolina Electric & Gas Company ("SCE&G"), for the Review Committee's consideration is a copy of SCE&G's comments on this subject matter.

It is SCE&G's understanding that the Review Committee will provide the public an opportunity to provide oral testimony during a future hearing. SCE&G would like to provide oral testimony at any Review Committee hearing. Therefore, please direct all future notices and any other documents issued by the Review Committee concerning this matter to me at the address set forth below.

Thank you for the opportunity to submit the enclosed comments. If you have any questions or need additional information, please do not hesitate to contact us.

Very truly yours,

K. Chad Burgess

KCB/kms
Enclosure

**State Regulation of Public Utilities Review Committee
Request for Comments on Energy and Energy Policies
Comments of South Carolina Electric & Gas Company**

I. Introduction

On October 17, 2008, the State Regulation of Public Utilities Review Committee (“Review Committee”) issued a “Request for Comments on Energy and Energy Policies” for the purpose of “elicit[ing] the information necessary to allow our state policymakers to provide guidance to our Congressional delegation and others as to the most appropriate way to steer our country toward energy independence and encourage wise energy use and development that will benefit South Carolina and our nation.” Thank you for this opportunity to share with the Review Committee SCE&G’s responses to the following questions which the Review Committee submitted to the public for comments.

II. Comments of South Carolina Electric & Gas Company

1. What action do you anticipate from the U.S. Congress as to climate change legislation? What impact may this have on South Carolina?

There has been a lot of discussion and debate on the issue of climate change in the U.S. Congress, particularly as it relates to utilities and their impact on the environment. South Carolina Electric & Gas Company (“SCE&G” or “Company”) cannot accurately predict the future actions of the 111th Congress, which begins January 2009, but the Company anticipates that climate change legislation will be one of the many issues to be addressed in the upcoming congressional session. Many climate change bills were

introduced during the 110th Congress; however, one climate change bill garnered more attention than others, namely, the Lieberman-Warner Climate Security Act of 2008.

On October 18, 2007, Senators Joseph I. Lieberman and John W. Warner introduced America's Climate Security Act (S. 2191), which was subsequently amended on December 5, 2007, and renamed the Lieberman-Warner Climate Security Act of 2008 (S.3036). Under the provisions of this bill, a cap-and-trade program would be established to reduce United States greenhouse gas emissions between 2007 and 2050. The cap, which is directed at electric utilities and other certain entities, starts at 4% below the 2005 emission level in 2012 and then lowers year-by-year at a constant, rate, such that it reaches 19% below the 2005 emission level in 2020 and 71% below the 2005 emission level in 2050. The bill directs the United States Environmental Protection Agency to manage and track emission allowances for the life of the program.

Largely missing from the climate change conversation is a thorough consideration of the cost of potential solutions on consumers in South Carolina. In short, climate change legislation, such as the Lieberman-Warner Bill or the proposed Dingell-Boucher Bill, will more than likely cause the price of electricity to increase in South Carolina. Key to developing an effective policy on this issue is striking a fair and reasoned balance between the costs associated with reducing emissions and the overall benefits to the environment. Recognizing impacts and opportunities in South Carolina will be critical to minimizing the effects of legislation on a state that contains significantly lower income levels, coupled with limited non-emitting generation sources.

SCE&G is committed to being a good steward of the environment. The Company has spent hundreds of millions of dollars over the years on environmental upgrades and will spend

hundreds of millions more in the future on the latest emissions control technology as highlighted later. However, when considering climate change legislation, consideration must also be given to the cost to the consumer. SCE&G offers the following example to keep in mind when considering climate change legislation.

In March 2005, the United States Environmental Protection Agency ("EPA") issued a final rule known as the Clean Air Interstate Rule ("CAIR"). CAIR required that the District of Columbia and twenty-eight (28) states, including South Carolina, reduce sulfur dioxide ("SO₂") and nitrogen oxide ("NO_x") emissions in order to attain mandated air quality levels. CAIR established emission limits to be met in two phases beginning in 2009 and 2015, respectively for NO_x and beginning in 2010 and 2015, respectively for SO₂. In addition, the EPA required some states to enact a State Implementation Plan designed to address air quality issues. The South Carolina State Implementation Plan (the "Plan") required, among other things, the reduction of SO₂ emissions from coal-fired generating facilities. The Plan also required a reduction in NO_x emissions in the months of May through September until 2009 when the CAIR limits would become effective. CAIR and the Plan directly impacted SCE&G.

As a result of CAIR and the Plan and to meet its compliance requirements, SCE&G is installing desulfurization equipment (wet scrubber) in connection with the operation of the Company's Wateree generating station located in Richland County to reduce SO₂ emissions at the plant. Desulfurization equipment is also being installed in connection with the operation of Williams Station located in Berkeley County. In addition, SCE&G is installing a Selective Catalytic Reactor at its Cope generating station located in Orangeburg County to

reduce NOx emissions at the plant. When completed, these pollution control facilities at these generation stations will cost approximately \$621 million.¹

While this intense capital investment is clearly beneficial for the environment, these facilities will not generate any additional megawatts of energy and in some instances may actually generate less megawatts. Therefore, as climate change legislation is discussed and debated, it is critical that South Carolina's policymakers be mindful of the financial impacts associated with such legislation on utilities and consumers and strike an appropriate balance.

- 2. Does South Carolina have governmental resources available to study, plan, or act upon current or future energy policies? Are these resources sufficient? Are these resources appropriately empowered to act? Is there any overlapping of roles?**

Rather than provide specific comment on this topic, SCE&G defers to the General Assembly and the appropriate state agencies on this question as these entities are in a better position to address this topic. However, SCE&G stands ready to provide any governmental agency with assistance on energy policies issues.

- 3. How do we use electricity in South Carolina? How is our use different from other states, with respect to amount of use and type of use? What factors drive this usage?**

Below is a table depicting how residential customers in the South Atlantic region of the country, which includes South Carolina, use electricity. For comparison purposes, this table also includes residential customer usage from other parts of the country.

¹ On July 11, 2008, the United States Court of Appeals for the District of Columbia Circuit, vacated CAIR in its entirety and remanded it to the EPA for further rulemaking. As of the date of this submittal, the EPA has not taken any action concerning the issuance of a new or revised rule addressing air quality standards. Nevertheless, SCE&G anticipates that the EPA will take some action in the future but at this time does not know what impact any newly issued rule will have on its electric utility operations. Although there is uncertainty regarding future action to be taken by the EPA, the Company continues to believe that there are significant environmental benefits to be achieved through reduced SO₂ and NOx emissions, and that the pollution control facilities will be critical to meeting future regulatory requirements. Therefore, SCE&G is continuing with the construction of its pollution control facilities.

2004 Residential Energy Market Profiles Sector Summary -- All Residential Homes Census Division				
States	Total US	New England CT, ME, MA, NH, RI, VT	South Atlantic DE, DC, FL, GA, MD, NC, SC, VA, WV	Pacific AK, CA, HI, OR, WA
<i>KWH per Household</i>				
Space Heating	1,009	449	1,389	940
All Cooling	1,634	459	2,857	306
Water Heating	944	577	1,713	640
Refrigeration	1,010	828	1,176	696
Lighting	2,033	1,992	2,458	1,135
Other Uses	4,706	3,575	5,174	3,974
Total	11,336	7,880	14,767	7,691
<i>% of Total</i>				
Space Heating	8.9%	5.7%	9.4%	12.2%
All Cooling	14.4%	5.8%	19.3%	4.0%
Water Heating	8.3%	7.3%	11.6%	8.3%
Refrigeration	8.9%	10.5%	8.0%	9.1%
Lighting	17.9%	25.3%	16.6%	14.8%
Other Uses	41.5%	45.4%	35.0%	51.7%
Total	100.0%	100.0%	100.0%	100.0%

In the Southern states, a significant amount of electricity is used for space heating and cooling and water heating. Many states are too cold to use a heat pump and must use natural gas or oil to heat their homes. In South Carolina, heat pumps are very economical and tend to increase the consumption of electricity by residents relative to other states when only electricity is compared. Please note that in the New England region, where significantly more space heating and water heating is required than in the South, the kilowatt hour ("kwh") usage is 449 and 577 kwh per year while in the South Atlantic region three times as much is needed. Clearly, much of the space and water heating in the New England region does not depend on electricity. Similarly with cooling, which is primarily all electric, the South Atlantic region consumes much

more electricity than either the New England or the Pacific region simply because the South has much hotter summers making air-conditioning almost a necessity.

4. What can we do to better use our energy resources?

SCE&G recommends that continued attention be given to green building initiatives that are beginning in the state. The Company also suggests that the General Assembly and regulatory agencies continue to review incentive efforts which encourage energy conservation and efficiencies.

5. What demographic or other factors prohibit or inhibit our ability to be more energy efficient?

Economics is the major driver for energy efficiency. With South Carolina having some of the lowest electricity prices in the country, the economic benefits of buying higher efficient appliances and electric devices and having stricter building codes challenges the justification of the cost of these measures. However, as the cost of natural gas and coal increase faster than general inflation, in large part because of international demand, the economics of energy efficiency will likely change.

6. What types of renewable sources of energy are available in South Carolina? What is the expected cost to produce electricity from those resources?

Below is a list of clean energy resources available in South Carolina. While many of these resources are beneficial and worthy of consideration, most face significant challenges which the Company has identified below.

Nuclear. One large challenge for nuclear power is the capital cost to build it. SCE&G has mitigated this challenge somewhat by partnering with Santee Cooper, thereby, sharing the cost and the associated risk. Additionally, the Base Load Review Act in South

Carolina mitigates the financial risk and some of the concerns of the financial community. Nuclear is a non-emitting source which is a benefit to climate change.

Solar Photovoltaic (PV). The biggest challenge for Solar PV is costs. Solar PV has the highest cost per KW of any electric generation technology. The estimated cost for a small residential system is \$8000-\$10,000/KW. The estimated cost for utility scale system is \$4000-\$6000/KW. Another challenge for Solar PV is the area required for the panels. For a utility scale system, 6-8 acres are required for every MW of capacity. A 100 MW system would need at least 600 acres. A third challenge for solar PV is its low capacity factor. The energy from the sun varies across the day, across the year, and across the country resulting in typical capacity factors of 11% to 23% depending on location. In South Carolina we would expect an 18%-20 capacity factor.

Solar Thermal (Concentrating Solar Power - CSP). Solar Thermal systems use mirrors to direct sunlight on a thermal receiver that transfers the heat from the sun to a fluid that is heated to produce steam. The challenges for Solar Thermal are the same as Solar PV, cost, area, and capacity factor.

On-Shore Wind. The greatest challenge for on-shore wind power in South Carolina is the lack of wind. A minimum annual average wind speed of 7.5 m/s is required to power a wind turbine. South Carolina's annual average wind speed on-shore is <5.6 m/s. The South Carolina technical potential is estimated at 100 MWs. The South Carolina practical potential is estimated at 0 MWs. Less than 10% of wind capacity can be relied on to meet the peak usage.

Off-Shore Wind. The first challenge for off-shore wind is cost. Several project estimates for off-shore wind power are \$5000/KW by Long Island Power Authority and \$3555/KW for a project in Delaware by Delmarva Power. Since no offshore wind turbines have

been installed in the US, siting remains a challenge. Transmission and maintenance costs are also large challenges for off-shore wind.

Hydro. The greatest challenge with conventional hydro power is permitting new sites. Most of the hydro potential at existing impoundments has been developed.

Wood Biomass. Wood biomass plants typically need to be located with a 30 mile radius of the fuel source to keep transportation costs to a feasible level. The truck traffic required to support a wood biomass plant would pose a challenge for some locations.

Agriculture By-Products Biomass. There are limited resources for agriculture by-products biomass in SC and they would compete with the fertilizer industry. Existing sources include poultry litter, swine waste, corn stover and switchgrass. The availability of resources is also sporadic because of growing seasons.

Landfill Gas. There are limited resources of landfill gas. Many of the available locations have already been developed.

7. What is the expected cost to transmit electricity from those resources?

The cost to construct transmission is an unknown until the final location of the generating facility is determined. In an attempt to provide the Review Committee with transmission costs data, SCE&G created the table below. Please note that the transmission costs below for off-shore wind are the average of announced off-shore wind projects.

Technology	Overnight Construction costs (2007\$/KW)	Overnight Transmission Construction Costs (2007\$/KW)
Landfill Gas	1450	10.75
Wood Biomass	2700	10.75
Agriculture Biomass	2927	10.75
Wind Offshore	4278	559
Solar PV	4000-6000	10.75

8. What types of non-native renewable sources of energy are available to South Carolina? What is the expected cost to transmit electricity from those resources to South Carolina?

SCE&G defines non-native renewable sources of energy to be those in other states that might be available for purchase and transmission to South Carolina. In responding to this question it is important to understand two important facts. First, the country's transmission grid was not designed to move significant amounts of power great distances across the country. Therefore, it is not practical to purchase wind power from Texas for transmission to South Carolina. Second, there are no significant amounts of renewable power available in the southeast and what little renewable power is generated will more than likely be consumed by citizens of the state where the renewable power is generated. This is so because some states have enacted renewable portfolio standards (RPS) and the utilities will likely need the renewable resources in order to meet state-mandated RPS.

To put this into perspective consider the renewable resources available in South Carolina and North Carolina keeping in mind that North Carolina has a 12.5% renewable portfolio standard. LaCapra Associates was commissioned to estimate the practical potential for renewable power in both states.² The results are summarized in the table below. The LaCapra studies do not include solar projections because of the high cost and low energy density.

Source	SC Practical Potential (MWs)	NC Practical Potential (MWs)
Biomass	423	1000
Landfill Gas	70	150
Agriculture Biomass	68	265
Hydro	105	408
Wind, on-shore	0	1500
Potential	606	3323
% of All Capacity	3%	12.3%

9. What programs that promote energy efficiency exist in our state?

SCE&G offers several programs to its customers that promote energy efficiency. These programs are classified as energy efficiency and demand response. Information on other programs throughout the state are compiled by the South Carolina Energy Office and are available in their annual report “South Carolina Utility Demand-Side Management and System Overview 2007.”

The Demand-Side Management Programs at SCE&G can be divided into three major categories: Customer Information Programs, Energy Conservation Programs and Load Management Programs.

² The study for North Carolina is available on the North Carolina Utilities Commission website at <http://www.ncuc.commerce.state.nc.us/rps/NC%20RPS%20Report%2012-06.pdf>. The study for South Carolina was commissioned by the Electric Cooperatives of South Carolina and it is available on their website at <http://www.ecsc.org/newsroom/RenewablesStudy.ppt>.

SCE&G's customer information programs fall under two headings: the annual energy campaigns and the web-based information initiative. As part of its annual energy campaigns, SCE&G, through various forms of media, proactively educates its customers and creates awareness of issues related to energy efficiency and conservation. For example, the Company publishes brochures designed to educate customers on energy saving tips. In addition, the Company places energy saving tips and other conservation information on its website.

As for its web based information and services programs, SCE&G has available a web-based tool which allows customers to access their current and historical consumption data and compare their energy usage month-to-month and year-to-year, noting trends, temperature impact and spikes in their consumption. The Company recently added the capability for residential customers to perform an energy audit online.

With regard to energy conservation programs, SCE&G promotes its Value Visit Program, its Conservation Rate and the use of seasonal rate structures. The Value Visit Program is designed to assist residential electric customers who are considering an investment in upgrading their home's energy efficiency. Through this program the Company explains the benefits of upgrading different areas of the home and what affect upgrading these areas will have on energy bills and comfort levels as well as informing the customer on the many rebates we offer for upgrading certain areas of the home.

SCE&G's Rate 6 Energy Saver / Energy Conservation Program is designed to reward homeowners and home builders who upgrade their existing homes or build their new homes to a high level of energy efficiency with a reduced electric rate.

As with seasonal rate structures many of the Company's rates are designed with components that vary by season. Energy provided in the peak usage season is charged a premium to encourage conservation and efficient use.

Turning to load management, SCE&G's load management programs have as their primary goal the reduction of the need for additional generating capacity. There are four load management programs: Standby Generator Program, Interruptible Load Program, Real Time Pricing Rate and the Time of Use Rates. The Standby Generator Program allows customers who own generators to release capacity back to SCE&G where it is used to satisfy system demand. Qualifying customers (able to defer a minimum of 200 kW) receive financial credits determined initially by recording the customer's demand during a load test. This program allows customers to reduce their monthly operating costs, as well as earn a return on their generating equipment investment.

With regard to its interruptible load program, SCE&G has over 200 megawatts of interruptible customer load under contract. Participating customers receive a discount on their demand charges for shedding load when SCE&G is short of capacity.

Turning to real time pricing ("RTP"), a number of customers receive power under this program. During peak usage periods throughout the year when capacity is low in the market, the RTP program sends a high price signal to participating customers which encourages conservation and load shifting. Of course during low usage periods, prices are lower.

The Company also offers time of use rates. SCE&G's time of use rates contain higher charges during the peak usage periods of the day and discounted charges during off-peak periods. This encourages customers to conserve energy during peak periods and to shift energy consumption to off-peak periods. All our customers have the option of a time of use rate.

10. Are these programs affordable to all South Carolinians? Should they be affordable to all South Carolinians?

Most of these programs are affordable to South Carolinians. Having the goal of cost-effective energy efficiency, the programs should be designed to achieve this goal while maximizing effectiveness and balancing equity for all rate payers.

11. Are energy efficiency measures a cost-effective alternative to the construction and operation of generation facilities?

Since the oil embargo in the 1970s, the country, state, utility commissions and utilities have been implementing various energy efficiency programs including those related to the manufacture of electrical equipment and building standards of homes and businesses. These efforts have certainly tempered the growth in energy needs and thereby affected the need for generation facilities. However, based on this experience of 30 years, it is clear that energy efficiency cannot eliminate all construction and operation of generation facilities and energy requirements. Energy efficiency is certainly an important part of a utilities portfolio of options to serve customers, but it is only one piece of the mix.

12. How should energy efficiency incentives be designed?

Incentives should be designed to provide program participants assistance with the financial cost of installing an energy efficiency measure while simultaneously providing cost effective benefits to the system as a whole. The level of incentive should also be equitable with respect to all rate payers.

- 13. The heavy use of concrete and steel to construct coal and nuclear generating facilities in China, India, and other developing nations and the importation of fuel needed to create energy from those facilities has increased the price of these raw materials and commodities beyond most projections. Is this level of growth sustainable? Will prices continue to be driven by this global demand? How will South Carolina be affected by this global demand?**

Without question events occurring throughout the world are having profound effects on the United States. For example, during the summer of 2008, SCE&G experienced a sharp increase in coal and natural gas prices which was largely attributed to the global demand for these commodities. Fortunately, however, the price of coal and natural gas has retreated somewhat in recent months. In addition to the decline in coal and natural gas prices, the price of uranium has also fallen. Moreover, the price of steel is declining. As easily as these prices have declined, SCE&G understands that these prices could just as easily rise again. World markets will continue to impact these commodities.

- 14. How has the current economic situation affected the projections for energy use?**

SCE&G's retail sales in 2008 are below expectation by 1.6% on a weather normalized basis. The current retail sales forecast for 2009 over weather normalized 2008 is 1.2% which is slightly below the long run growth rate of 1.8%. The current economic situation is having some effect in the short run but like all previous economic slowdowns, SCE&G believes that growth will eventually return. The population of the state, the number of households and businesses and the economy in general will continue to grow and with it the need for energy.

III. Conclusion

SCE&G understands that the Review Committee is interested in educating the policymakers of South Carolina so that they, in turn, can educate and provide guidance to the South Carolina Congressional delegation and others as to the most appropriate way to steer our country toward energy independence and encourage wise use and development that will benefit South Carolina and our nation. The Company especially appreciates the opportunity to comment on these questions regarding climate change. SCE&G strongly believes that its plans to pursue additional nuclear generation will greatly assist our state and nation to achieve the desired results of reducing air emissions. SCE&G is hopeful that the comments provided above will aid the Review Committee in achieving its goal. Again, thank you for allowing the Company to comment on this important matter. If further information is needed, please advise.